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High quality FAC lens

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Applications

Element Technologies

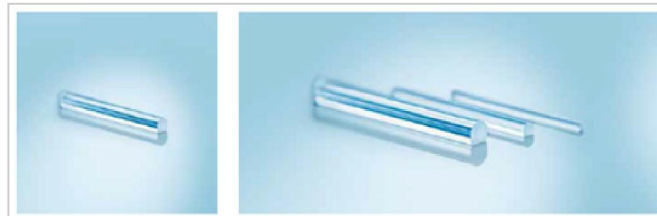
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High quality FAC lens

The use of Fast Axis Collimation lenses (FACs) for laser diodes has become state-of-the-art for a variety of industrial or biophotonic applications thanks to their outstanding performance and their compact design.

FISBA manufactures customized FAC lenses with the best coating performance and high surface quality. These features ensure the highest beam quality and efficiency.

Nalux provides sales support, quality assurance and customer support for FAC lenses made by FISBA, which is our alliance partner.



Specifications

- Numerical aperture: < 0.8
- Focal length : EFL 0.1 – 2.0mm
- Materials : high-index glass with $n > 1.8$
- Antireflection coatings : 790-990nm as standards, customizable between 400 and 2200 nm
- Length : 1 – 20mm

Applications

- Collimation of high-power laser diodes
- Beam shaping systems
- Micro illumination

Industries

- Pumping of solid state and fiber lasers
- Direct diode laser for material processing
- Computer-to-plate printing (CTP)

Developing our own automatic machine and measuring machine
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- Security, defence

Abilities of FISBA

- Customized designs for a wide range of wavelengths and coatings
- Reproducible and scalable process from 100 - 100'000 pieces
- Special designs such as TIR-FAC or TopHat-FAC

Technical specifications Fast Axis Collimation lenses (FAC)

Parameter	Wavelength range	Numerical aperture	Focal length (EFL)	Working distance (BFL)	Residual divergence @ 85% power enclosure	Dimension (height x thickness)
	nm	-	μm	μm	mrad	mm
FAC 150	790-990	0.8	150	30	±4.25	0.23 x 0.2
FAC 200	790-990	0.8	200	55	±3.25	0.33 x 0.27
FAC 300	790-990	0.8	300	70	±2.50	0.5 x 0.43
FAC 360	790-990	0.8	360	70	±2.00	0.6 x 0.53
FAC 450	790-990	0.8	450	100	±1.6	0.75 x 0.64
FAC 510	790-990	0.8	510	130	±1.75	0.91 x 0.7
FAC 600	790-990	0.8	600	140	±1.50	1.0 x 0.8
FAC 600	790-990	0.6	600	150	±1.50	0.8 x 0.82
FAC 600	420-500	0.8	600	150	±1.50	1.0 x 0.83
FAC 740	790-990	0.8	740	70	±1.25	1.2 x 1.2
FAC 900	790-990	0.8	900	90	±1.00	1.6 x 1.5
FAC 900-02	790-990	0.8	900	178	±1.00	1.6 x 1.34
FAC 1100	790-990	0.7	1100	110	±0.80	1.5 x 1.8
FAC 1100-02	790-990	0.45	1100	152	±0.95	1.1 x 1.7
FAC 1300	790-990	0.7	1300	130	±0.60	1.8 x 2.1
FAC 1500	790-990	0.5	1500	90	±0.50	1.65 x 2.57
FAC 1500	790-990	0.7	1500	90	±0.50	2.0 x 2.57
All FAC	Transmission (%): ≥ 98			Length (mm): customer specific		

※FISBA RGBeam is a product of [Fisba AG](#) which is our alliance partner.



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